



COUNTY SANITATION DISTRICTS OF LOS ANGELES COUNTY

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To: Todd Thompson Date: 9/10/99
SWRCB

From: Mike Sullivan # of pages: 10
(including this page)

Fax Operator: _____
(and extension number)

Comments: Thanks Todd. Have a good weekend.



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CHARLES W. CARRY
Chief Engineer and General Manager

September 10, 1999
File No: 31-320.10

Mr. Todd Thompson
State Water Resources Control Board
901 "P" Street
Sacramento, CA 95814

Dear Mr. Thompson:

Draft Environmental Impact Report (DEIR) Covering General Waste Discharge Requirements for Biosolids Land Application

The County Sanitation Districts of Los Angeles County would like to first express appreciation for the great amount of work which has been put into this project thus far. It is very beneficial to have a thorough state review of all issues related to this matter, which has caused a great deal of controversy and strong reactions in many localities. As the number of counties that enact, or are considering, restrictive land application ordinances grows, it is increasingly important that a broad state review be balanced and scientifically based. The state review must also consider the importance of recycling its own waste streams, as well as the environmental impacts of that recycling effort. A thorough and balanced review which "contains requirements that are based on sound science and best professional judgment" (quoted from the DEIR Executive Summary) should provide regulations in which all concerned localities can be confident of the protection of public health.

The following comments are expressed based on the order in which each section of related text appears in the DEIR. Deletion recommendations are shown with strikeouts and additions are shown with underlines.

No.	Section	Page	Comment
1	Executive Summary	ES-3	Correction should be made in the last paragraph of this page as follows "The California Association of Sanitary Sanitation Agencies (CASA)". This correction must also be made throughout the DEIR.
2	Executive Summary	ES-6	The first sentence on this page should be amended as follows "and contains requirements that are based on sound science and best professional judgement."
3	Executive Summary	ES-6	The last sentence states that "The identification of permitted activities under the GO does not preempt or supersede the authority of local agencies to prohibit, restrict, or control biosolids reuse." This sentence is unnecessary. Although it may be correct under current law, that situation could change, and inclusion of this language could unnecessarily lead to a challenge to the GO if it is based on this premise. The sentence should be deleted and text added to indicate that more restrictive local regulations should be based on an increased risk due to unique local conditions that were not examined under the DEIR. The same comment applies to last sentence on Page 2-10 of Chapter 2.

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4	Executive Summary	ES-9	The 10 th bullet item on this page should be amended as follows: "no application or incorporation into the soil is permitted when wind may reasonably be expected to cause particles of biosolids to become airborne particulates to and drift from the site". Particles of dust or other material, whether related to biosolids application or not, will be limited by current farming regulations.	23-5
5	Executive Summary	Table ES-1	Comments on Mitigation Measures listed in this section will be discussed under the chapters with which they are associated.	23-6
6	Executive Summary	Table ES-1 Page 3	The first listed impact on this page should be amended as follows: "Potential soil degradation at recreation-area application sites".	23-7
7	Chapter 2	2-8	The first bullet item on this page states that the GO is intended to "comply with Section 13274 of the California Water Code and the judicial order by the Superior Court of California for the County of Sacramento by adopting statewide general WDRs for the discharge of dewatered, treated, or chemically fixed sewage sludge (biosolids) for beneficial use as a fertilizer and/or soil amendment". Section 13274 of the California Water Code states "The state board or a regional board, upon receipt of applications for waste discharge requirements for discharges of dewatered, treated, or chemically fixed sewage sludge and other biological solids, shall prescribe general waste discharge requirements for that sludge and those other solids. General waste discharge requirements shall replace individual waste discharge requirements for sewage sludge and other biological solids, and their prescription shall be considered to be a ministerial action." It is unclear whether there will be an immediate effect on existing WDRs, an effect during the renewal process, or no effect at all. It must be made clear that the GO is not required to replace existing site specific WDRs either immediately or upon renewal, but is an option for each RWQCB during either the renewal or initial permitting process. Otherwise, there would be unintended and undesirable consequences such as loss of valid site specific conditions, inappropriate regulation of sites over 2,000 acres, ... etc.	23-8
8	Chapter 2	2-12	The last paragraph of this page states that the "biosolids that are to be applied to land under the GO must comply with minimum standards for concentrations of 10 metals, nine of which are regulated under the Part 503 regulations. The scientific basis for inclusion of a further constituent to a list developed through a scientific, risk based analysis must be provided.	23-9
9	Chapter 2	Table 2-4	Chromium should be deleted from this table unless a scientific based justification is provided.	23-10
10	Chapter 2	Table 2-5	Molybdenum should be deleted from this table unless a scientific based justification is provided. The USEPA is in the process of developing a risk based cumulative loading limit for molybdenum and projects publication of results by the end of 1999. It should be stated that when this limit is adopted by the USEPA that it will be automatically included in the GO.	23-11
11	Chapter 2	2-15	The first paragraph requires that "storage areas must be covered between October 1 and April 30 during periods of runoff-producing precipitation". An allowance should be made for uncovered storage facilities that are designed to collect and impound runoff which would be either legally reused or disposed.	23-12

12	Chapter 3	3-17	The second paragraph on this page states that the "semivolatile organic compounds (SVOCs) generally are present in low amounts in municipal biosolids." It goes on to say that the "Part 503 regulations do not require that biosolids be tested for SOC's (Synthetic Organic Compounds); however, the proposed GO monitoring program would require testing of biosolids for PCBs and SVOCs." The reason given for this requirement is that "much less is known about soil accumulation, plant uptake, and concentration mechanisms of SOC's in soil." While benefits of this monitoring may exist, scientific reasons should be given which explain why certain compounds were chosen and others were not. It must also be clearly stated what will be done with this information and to what standards it will be compared. Having this type of information prior to collection of the data will help in obtaining public acceptance of any conclusions.	23-13
13	Chapter 3	3-34	The fourth bullet item on this page states that the "proposed GO includes concentration limits and cumulative loading rates for chromium and molybdenum. The proposed GO is therefore more restrictive than the existing Part 503 regulations that do not include limits for these trace metals". If document is to be truly based on sound science and best professional judgement, the utilization of limits for these two constituents must be delayed. Inclusion of limits that were rejected by the source of the scientific study that produced the limits is not reasonable. As previously stated, the USEPA is in the process of developing a risk based cumulative loading limit for molybdenum and projects publication of results by the end of 1999. It can be stated that when this limit, or any other limit is added by the USEPA to the 503 Regulations, that it will be automatically included in the GO.	23-14
14	Chapter 4	4-12	Mitigation Measure 4-2 recommends extending the grazing restriction after land application of biosolids to 90 days. This extension is unnecessary and should be removed. The 30 day restriction found in the 503 Regulations was based on scientific data and has been found to be adequate to protect animal health. The conclusion at the end of this mitigation measure is that it "will promote maximum biodegradation of SOC's and pathogens before grazing animals are exposed to the soil." This conclusion is not based on a scientific study and until it is determined what, if any, measurable biodegradation occurs between the 30 th and 90 th days after biosolids application should be removed. Additionally, it appears that a typographical error exists in that the wording of this mitigation measure does not match the wording used in Table 15-1.	23-15
15	Chapter 5	5-29	Mitigation Measure 5-2 also recommends an extension of the grazing restriction after land application of biosolids. The comment is the same as for Comment No. 14.	23-16
16	Chapter 6	6-7	Part (a) of Mitigation Measure 6-1 requires that "no application of Class B biosolids shall be permitted within an area defined in the GO as having a high potential for public exposure unless the biosolids are injected". In principle this restriction has merit, but the definition of a "High Potential for Public Exposure Area" must be modified. The definition supplied in the GO is: Land located within one-half mile of a developed border of a populated area. This definition is vague and unworkable. It is possible for an area fitting this definition to actually have extremely low public exposure and for an area outside of this one-half mile restriction to have relatively high public exposure. The definition should be replaced with wording contained on Page 6-7: Land located within one-half mile of educational facilities, facilities designated for recreation activities other than hunting, fishing, or wildlife conservation, places of public assembly, hospitals, or similar sensitive receptors.	23-17

17	Chapter 7	7-11	The third paragraph on this page states that "Biosolids Application could result in the loss of special-status plants or animals if it is applied to natural terrestrial habitats (i.e. rangelands) or any land that have been fallow for more than year." It should be clearly stated what the special-status plants or animals are and the time frame that ground is allowed to remain fallow must be extended. During normal farming practices, especially on the marginal land to which biosolids is generally applied, land can often be left fallow for periods of time exceeding one year. Requiring a report prepared by a qualified biologist after such a short period of time would be an unwarranted hardship on the farming community and would discourage biosolids reuse. This time frame should be extended to represent an actual period under which reversion to a native status could actually occur, such as five years or more.
18	Chapter 8	8-4	Mitigation measure 8-1 proposes that "land applications in the habitat range of the pupfish should be reviewed for their proximity to enclosed water bodies that could be occupied by pupfish. If such water bodies are near the land application areas, setbacks of 500 feet should be required." The 'habitat range of the pupfish' should be clearly defined and the mitigation measure should be amended as follows: "water bodies that <u>could</u> be reasonably expected to be naturally occupied by pupfish." Also, the setback increase from 100 feet to 500 feet must be substantiated by scientific evidence showing its necessity.
19	Chapter 10	10-5	The last paragraph on this page states that the GO "prohibits the release of any visible airborne particles from the application site during biosolids application or during incorporation of biosolids into the soil." This prohibition must be changed to reflect actual farming conditions. Dust generation due to farming operations is already controlled through other regulatory means and the purpose of the eleven setback requirements already in the GO is to minimize this type of impact. The way this restriction is worded, even dust blowing from one application site to an adjacent application site would be restricted. The intent of this prohibition is to prevent any biosolids particles from becoming airborne and having an impact on air quality offsite. This can be accomplished by changing the wording in this paragraph, in the second paragraph on Page 10-9, and in the GO to "any visible airborne biosolids particulates".
20	Chapter 10	10-6	The last paragraph on this page states that the "Emissions are considered significant if they exceed the most stringent significance thresholds for air districts where biosolids are applied in the greatest volumes". This statement is inaccurate. The thresholds of significance should be those applied by the respective air district for CEQA purposes and not simply the most stringent three air districts.

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21	Chapter 10	10-7	Mitigation Measure 10-1 proposes to limit vehicle miles traveled (VMT), on paved roads, by biosolids transport vehicles to 4,800 VMT per day. The basis for this is unclear. The vehicle emissions appear to be estimated for the total miles traveled for a project and not the miles traveled within a given air basin. The total miles traveled within each air basin should be compared against the significance thresholds established by the APCD for that air basin. The study of this impact should be completed in this manner and should also include mitigation measures such as alternatively fueled vehicles. The study should also take into account the secondary impacts that a VMT limit would have if it made utilization of biosolids untenable. If biosolids usage were eliminated due to this limitation, the result would be that farm operations would have to haul in and apply inorganic fertilizer and other sources of nutrients and the biosolids would have to be hauled to remote landfills. The cumulative effect would be that emissions from biosolids transport vehicles might be reduced but a net increase in emissions would result.
22	Chapter 10	10-8	Mitigation Measure 10-2 proposes to limit biosolids transport vehicles, on unpaved roads, to 67 VMT per day. The same arguments from comment No. 21 apply to this mitigation measure. In addition, it is unclear whether this limit applies to spreaders or front-end loaders. Alternate methods to control dust from unpaved roads, such as limiting the speed of vehicles, should also be studied.
23	Chapter 11	11-6	Mitigation Measure 11-1 states that the "transporter will avoid the use of haul routes near residential land uses to the extent possible." A clear definition of "near residential land uses" should be provided.
24	Chapter 13	13-3	Mitigation Measure 13-1 requires that the RWQCB engineer review the Notice of Intent and determine whether a nitrate contamination problem exists or if the "proposed project would pose and imminent threat of contributing to or causing exceedances of water quality standards for nitrate". This language is vague and subject to wide interpretations. A clear definition of what is an 'imminent threat' to water quality standards should be provided.
25	Chapter 15	Table 15-1	This table should be modified to reflect the aforementioned changes to the mitigation measures.
25	Appendix A	Page 1	The SWRCB General Order for land application of biosolids was developed as a basis for the DEIR. The DEIR was required because of a SWRCB finding that the negative declarations prepared by the Central Valley and Lahontan RWQCBs for their General Orders and Exceptional Quality (EQ) Waiver were not adequate. The GO regulates both Class A and B biosolids, which are not EQ, and certain EQ biosolids because "public acceptance to large scale uses has indicated the need for oversight at this time, regardless of the actual threat to water quality". The criteria used to determine which EQ biosolids applications would be permitted, and which would not, is arbitrarily based on biosolids content of the material, loading rate, and area of application. The SWRCB is outside its area of authority and does not have the right to regulate any activity based on perception. Further, the SWRCB should have developed regulatory guidelines which parallel the baseline which was initially questioned (i.e. a General Order for non-EQ biosolids and an EQ Waiver). The GO should therefore be restricted only to non-EQ biosolids. Otherwise all use of compost and other "products" will be subject to this permit, which will result in a marketing disadvantage for those products and may ultimately end any efforts to reuse higher quality biosolids. Sections 1.a and 1.b on this page should be deleted.

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27	Appendix A	Page 2	Section 2 states that oversight of EQ biosolids is necessary due to the "perception of unregulated dumping". This requirement is based neither on sound science nor best professional judgement and Section 2 should be deleted in its entirety.
28	Appendix A	Page 3	Section 3.n. contains a definition for High Potential for Public Exposure Areas which should be changed, as described in Comment No. 16, to the following: "Land located within one-half mile of educational facilities, facilities designated for recreation activities other than hunting, fishing, or wildlife conservation, places of public assembly, hospitals, or similar sensitive receptors."
29	Appendix A	Page 5	Section 3.ak. defines tailwater as "Excess water discharged to surface water bodies resulting from crop irrigation." Certain farming operations have tailwater collection system that impound this flow for return to the fields. This definition should be modified as follows, "Excess water discharged to surface water bodies resulting from crop irrigation."
30	Appendix A	Page 8	Section 10 states that "The National Research Council established a committee to review the methods and procedures used by the U.S. EPA while forming the basis of the 40 CFR 503. The National Research Council's members are drawn from the National Academy of Sciences, National Academy of Engineering, and the Institute of Medicine. Committee members included university professors from the schools of law, science, and agriculture; a state health official; a food industry professional; a professional from a sanitation agency; and a professional consultant. After a three-year study (starting in 1993), the committee made some recommendations for improvement but also stated: 'Established numerical limits on concentration levels of pollutants added to cropland by sludge are adequate to assure the safety of crops produced for human consumption.' As a result of the peer review, monitoring for organic chemicals and using fecal coliform testing as a parameter for determining Class A pathogen reductions is included in this General Order." First of all, there is no NRC committee recommendation to monitor biosolids for organic chemicals. The recommendation was that when the USEPA conducts the second National Sewage Sludge Study, they should strive to improve the integrity of the data by using more consistent sampling and data-reporting methods in order to show whether or not toxic organic compounds are present in biosolids at concentrations too low to pose a human/animal health and environment risk. Secondly, the recommendation to use the fecal coliform test in place of the Salmonella test deals with acceptable product quality. While the SWRCB may impose this restriction on non-compost Class A biosolids, it is outside the SWRCB's jurisdiction with respect to compost quality. Compost quality is regulated under the authority of the California Integrated Water Management Board through their composting regulations in Title 14, Chapter 3.1 and it is recommended that changes to product quality be uniformly instituted there.

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31	Appendix A	Page 9	Section 15 states that "This General Order shall primarily apply to the land owner of sites using biosolids, but may also include, as determined by those involved in the operation, the individuals, companies, or municipalities generating, transporting and placing the biosolids (Class A or Class B) and the land lessee, in conjunction with the land owner." It is not clear why the General Order will "primarily apply to the land owner" since in many instances the land owner does not directly manage the land application activities. A land owner that is not the land applicator has chosen to receive an agricultural product and has contracted with the applicator to provide this product. It is recommended that the General Order apply primarily to the applicator and that the General Order contain requirements for the landowner and lessee to certify that they agree to use the material and that they understand and agree to comply with all site restrictions required by regulation. It is also unclear what is meant by "as determined by those involved in the operations". Section 15 should be revised as follows: "This General Order shall primarily apply to the land owner of sites using biosolids, but may also include, as determined by those involved in the operation, the individuals, companies, or municipalities generating, transporting and engaged in the placement of placing the biosolids (Class A or Class B) on land for use as a soil amendment (Applicator). Such Applicator is required to inform and obtain certifications as appropriate from other parties including generators, transporters, land owners, and land lessees to satisfy all requirements of this General Order and the land lessee, in conjunction with the land owner."
32	Appendix A	Page 14	The ceiling concentration (mg/kg dry weight) levels listed in Section A.12, for copper, lead, and chromium are 2500 mg/kg, 350 mg/kg, and 3,000 mg/kg, respectively. These limits should be modified to match the scientifically based limits contained in the 503 Regulations, or scientific justification should be made for them to remain. The limits for copper and lead should then be 4300 mg/kg and 840 mg/kg, respectively, on a dry weight basis. The limit for chromium should be deleted.
33	Appendix A	Page 15	Section 14 states that "Any visible airborne particulates leaving the application site during biosolids applications or during incorporation of biosolids at the permitted site is prohibited." As described in Comment No. 19, the wording should be amended as follows: "Any visible airborne biosolids particulates leaving the application site during biosolids applications or during incorporation of biosolids at the permitted site is prohibited."
34	Appendix A	Page 15	Section A.15. States that "the application of biosolids in areas where biosolids are subject to erosion or washout offsite is prohibited." The meaning of this prohibition is unclear and a definition of the aforementioned areas should be provided.
35	Appendix A	Page 15	Section B.1 states that "All biosolids subject to this General Order shall comply with the applicable pathogen reduction standards listed in 40 CFR 503.32. In addition to those standards, all biosolids meeting Class A standards shall not have a maximum fecal coliform concentration greater than 1,000 MPN per gram of biosolids." Both the USEPA and the CIWMB have established pathogen reduction standards in compost which allow for the use of either a <i>Salmonella</i> or fecal coliform limit. It is recommended that the SWRCB exempt compost from this specification or petition the CIWMB to change the limit for all composts. If the SWRCB chooses to pursue regulation of pathogens in biosolids, it is recommended that the GO include provisions that will allow for the inclusion of a revised <i>Salmonella</i> test method upon adoption by USEPA.

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36	Appendix A	Page 15	USEPA's 40 CFR 503 requirement for the tracking of metals based on cumulative loading limits (Part 503, Table 2) is misapplied here. Part 503 does not require metals to be tracked for high quality biosolids (i.e. biosolids with metals concentrations less than Part 503, Table 3 concentrations). It is illogical to use a scientifically derived risk based rule and then apply the rule in a subjective manner. The further inclusion of background soils metals is also illogical. USEPA took into consideration existing background soils metals when developing the cumulative loading limits. The scientific basis for the cumulative loadings were designed to limit incremental risk attributed solely to biosolids additions, not background soils. Furthermore, concentrations (mg/kg) and loadings (kg/hectare) are two different factors which are not additive. Also, the molybdenum cumulative loading limit should be removed from the GO due to the court ruling deleting this limit from the federal regulation, as discussed in Comment No. 13. It is recommended that the SWRCB use Part 503, Tables 2 and 3 in the establishment of pollutant limits and let the Final Environmental Impact Report determine whether there is a need for the GO to be more stringent.
37	Appendix A	Page 17	Section B.8. lists land application setback requirements. The setbacks required in this section should be consistent with other regulatory limits and the CWEA Manual of Good Practice, as noted in Mitigation Measure S-1. The following changes should be made: "(b) 500-200 feet from domestic supply wells" and "(b) 10 feet from agricultural buildings".
38	Appendix A	Page 18	Section C.6. states that "Biosolids' storage facilities that contain biosolids between October 1 and April 30 shall be covered during periods of runoff inducing precipitation." As discussed in Comment No. 11, an allowance should be made for uncovered storage facilities that are designed to collect and impound runoff which would be either legally reused or disposed.
39	Appendix A	Page 20	Section D.7. should be amended as follows: "The discharger shall be responsible for informing all biosolids transporters, <u>and growers, applicators, and land owners associated with using the site of the conditions contained in this General Order.</u> " The term "growers" is undefined.
40	Appendix A	Pre-Application Report	Section 1.c. requires a mapping of staging areas. This will be irrelevant because staging areas can be anywhere near the border of an applicable field and are meant to limit compaction of soil. The wording should be amended as follows: "Storage or staging areas".
41	Appendix A	Pre-Application Report	Section 2 requires that a "separate Pre-Application Report must be filled out for each different biosolids' source." This method of reporting will lead to confusion regarding the overall site operation. The form should be modified to allow for all sources of biosolids to be reported in a single site Pre-Application Report.
42	Appendix A	Pre-Application Report	The Constituent Concentration Table in the Pre-Application Report is confusing as to what soil sampling is required. The scientific basis for requiring pH, fecal coliform, PCBs, aldrin/dieldrin, and semi-volatile organics analyses has yet to be established. Also, how the data would be used and what standards it would be evaluated against is not established. Refer to Comment Nos. 36 and 35 regarding recommendations for soil sampling and fecal coliform analysis.

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43	Appendix A	Pre-Application Report	Section 5 states that "For biosolids' application operations where minimum depth to ground water is less than 25 feet, a ground water monitoring program consisting of a minimum of three monitoring wells (one upgradient, two downgradient) for each application area is required and shall be in place prior to any application of biosolids if the discharger intends to apply biosolids more than three times within a ten-year period at any particular location. A report specifying location, construction, and development details of ground water monitoring wells shall be submitted to the RWQCB prior to the installation. In addition, a mean sea level (MSL) reference elevation shall be established for each well in order to determine water elevations." The groundwater monitoring program should be deleted entirely for several reasons. The basis for requiring agronomic application rates in the first place is to protect against groundwater degradation. It makes far more sense to emphasize the groundwater contamination prevention aspect of any program by focusing on appropriate application rates. Additional monitoring is unnecessary and will almost surely make beneficial use of biosolids prohibitively expensive for many sites. This will in turn force the use of chemical fertilizers, which can be much more of a groundwater contamination concern but requires no such monitoring.
44	Appendix A	Pre-Application Report	Section 6 requires that "A biosolids' storage plan must be attached. (Even if no on-site biosolids storage will be provided)." This requirement is unduly onerous and the wording should be amended as follows: "A biosolids' storage plan must be attached (Even if no on-site biosolids storage will be provided, a contingency plan for inclement weather operation must be attached).
45	Appendix A	Pre-Application Report	The storage information, erosion control plan, and spill response plan should be submitted with the NOI and not the Pre-Application Report. Otherwise, redundant material will be submitted with each Pre-Application report.
46	Appendix A	Pre-Application Report	Section 8.b.3. requires the following: "Identify all load restrictions for each traveled roadway." This requirement should be eliminated, as the time required to evaluate every road that every truck may travel on in any given area is not feasible. The proposed traffic route required in 8.b.1 is adequately descriptive.
47	Appendix A	Pre-Application Report	The annual report submittal date should be moved from January 15 to February 15. This will allow for sufficient report preparation time for dischargers operating multiple project sites.

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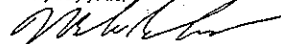
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The County Sanitation Districts of Los Angeles County appreciate every opportunity to provide input to this process and would like to thank all concerned for their efforts in preparation of the DEIR. Should you have any questions or require any additional information, please do not hesitate to contact me at (562) 699-7411, extension 2324.

Very truly yours,



Michael Sullivan
Biosolids Recycling Coordinator

MS:ms

Responses to Comments from the Los Angeles County Sanitation Districts

- 23-1. The commenter's opinions about the need for a statewide review of issues relating to biosolids management are noted. No response is necessary.
- 23-2. The requested correction has been made to the draft EIR, at the beginning of the final paragraph on page ES-3 and other occurrences:

The California Association of ~~Sanitary~~ Sanitation Agencies (CASA) . . .

- 23-3. The commenter's preferred spelling is noted.
- 23-4. As acknowledged, under current law, more restrictive local ordinances and laws may supersede federal and state regulations. However, the statement refers to the authority of those local governments to take such measures. Should that authority no longer exist, that portion of the proposed GO would not have any bearing. But, in accordance with Provision No. 12, the remainder of this proposed GO would remain valid. The text of proposed GO, Finding No. 17 of Appendix A, now reads:

This General Order sets minimum standards for the use of biosolids as agricultural, horticultural, silvicultural, or reclamation site soil amendments and does not preempt or supersede the authority of local agencies to prohibit, restrict, or control the use of biosolids subject to their control, as allowed under current law. It is the responsibility of the discharger to make inquiry and obtain any local governmental agency permits or authorizations prior to the application of biosolids at each site.

Please see Response to Comment 14-7.

- 23-5. This portion of the proposed GO and draft EIR has been changed. The text for the 10th bullet on page ES-9 of the draft EIR now reads:

~~no application or incorporation into the soil is permitted when wind may reasonably be expected to cause airborne particulate to drift from the site~~ the application of biosolids containing a moisture content of less than 50 percent is prohibited;

This change, along with an incorporation requirement, addresses drifting pathogen dust issues. Also see Master Response 9.

- 23-6. The comment is noted; no response is necessary.

- 23-7. The requested correction has been made to the draft EIR in the first impact on page 3 of Table ES-1:

Potential soil degradation at recreation-area ~~application~~ application sites

- 23-8. See Master Response 2.
- 23-9. See Master Response 4.
- 23-10. See Master Response 4.
- 23-11. See Master Response 4.
- 23-12. See Response to Comment 18-7.
- 23-13. See Response to Comment 1-4.
- 23-14. See Master Response 4.
- 23-15. See Master Response 7.
- 23-16. See Master Response 8.
- 23-17. See Master Response 11.
- 23-18. Special-status plants and animals are listed in Tables F-1 and F-2 in Appendix F of the draft EIR. The sources of the lists are included at the end of the tables. The requirement for conducting biological resource surveys on properties that have been left fallow for more than one year has been retained. Many special-status species in California are capable of recolonizing tilled land when it is left undisturbed for one year. The SWRCB does not intend to place such a severe hardship on landowners, such that biosolids application will be discouraged. But it is dedicated to complying with federal and state law requiring consideration of adverse effects on sensitive biological resources as it uses its discretionary authority. Also see Response to Comment 22-1.
- 23-19. Mitigation Measure 8-1 on page 8-4 of the draft EIR is modified by adding the following statement at the end of the paragraph:

There are several species of pupfish in southern California. Their current occupied habitat is confined to several small springs, Salt Creek and the Amargosa River in southern Inyo and northern San Bernardino counties in the vicinity of Death Valley National Monument, and San Felipe Creek and the Salton Sea in Imperial County. Exact locations of habitat can be found in Moyle et al. 1989.

The decision to increase the setback from 100 feet to 500 feet is based on a knowledge of surface soil and geologic conditions in southern California desert areas and professional judgement. Conditions exist in these areas where very coarse surface soils are underlain by relatively impermeable subsurface layers, promoting lateral rather than vertical movement of groundwater. Where these conditions might exist adjacent to and upslope of isolated water bodies occupied by pupfish, it would be prudent to allow an extra buffer to protect this sensitive species from groundwater contaminants, primarily nitrates. The knowledge that these conditions exist in isolated parts of the state is sufficient scientific justification for providing the extra margin of protection. It is not expected that this requirement will be an unfair or untenable burden on existing or future land application operations.

- 23-20. The text for page 10-5, last paragraph, first sentence in the draft EIR is revised as follows:

~~The proposed GO also prohibits the release of any visible airborne particles from the application site during biosolids application or during incorporation of biosolids into the soil.~~ The proposed GO also requires biosolids to be at least 50 percent moisture and to be incorporated within 24 hours in arid areas and 48 hours in all other areas.

Also see Master Response 9.

- 23-21. See Master Response 5.
- 23-22. See Master Response 5.
- 23-23. See Master Response 5.
- 23-24. The term “near land residential uses” is intended to refer to predominantly residential neighborhoods along surface streets and highways. A specific quantitative definition is not practical. It is assumed that trucks delivering biosolids and those making deliveries to agricultural operations will use the same routes.
- 23-25. RWQCB staff members are routinely required to make independent risk assessments of contamination. Therefore, assessment of whether the biosolids application under the proposed GO will contribute to existing nitrate contamination in groundwater should not pose any undue burden on RWQCB staff. In addition, it is general knowledge which groundwater basins have widespread nitrate contamination. In practice, land application projects subject to Mitigation Measure 13-1 are those proposed for areas with existing and acknowledged nitrate problems. Consequently, there would be a limited need for RWQCB staff members to make independent judgments regarding the need for protective measures beyond those contained in the proposed GO.
- 23-26. Table 15-1 has been modified and is included as Appendix C to this document.

- 23-27. The SWRCB and RWQCBs regulate biosolids under Section 13274 of the California Water Code. That portion of the code does not exempt any class of sludge products from being subject to regulation. As proposed, the GO is not proposing to regulate products applied at usual rates. However, SWRCB staff believes that biosolids applied at higher loading rates is more likely to be a dumping operation than an application for legitimate farming or other soil use application. Such applications are cause for environmental concern. Finding No. 2 has been rewritten to more clearly state this issue. The text of the proposed GO, as found in Finding No. 2 of Appendix A, now reads:

EQ biosolids may not necessitate regulation in the future. However ~~public acceptance~~ it is believed that ~~tolarge scale useshas indicated the need for currently require~~ oversight ~~at this time~~, regardless of the actual threat to water quality while done at agronomic rates and using best management practices. Accordingly, this General Order can be applied to such sites to ensure that biosolids are being properly used of and not an activity of unregulated dumping necessitates that t. This regulatory tool may be used to regulate material that is land applied at a high loading rate to discourage poor management and reduce risk to the public and the environment.

- 23-28. See Response to Comment 23-27.

- 23-29. See Response to Comment 16-18 and Master Response 11.

- 23-30. Comment noted. The definition of tailwater has been changed. The text of the proposed GO, as found in Finding No. 3(an) of Appendix A, now reads:

Tailwater: Excess water resulting in a discharged offsite to a surface water bodies body and resulting from crop irrigation.

- 23-31. It is true that the National Research Council recommended sampling for certain SOC's in the next National Sewage Sludge Survey. However, no survey has been started for such pollutants. See Response to Comment 1-4 regarding SOC's.

The SWRCB and RWQCBs regulate biosolids under Section 13274 of the California Water Code. That portion of the code does not exempt any class of sludge products from being subject to regulation. As proposed, the GO is not offering to regulate products applied at usual application rates. But, the SWRCB staff believes that sludge products applied at higher loading rates can be more of a disposal operation than an application for legitimate farming. Such applications are cause for environmental concern.

- 23-32. See Responses to Comments 14-3, 14-5 and 14-17.

- 23-33. See Master Response 4.

- 23-34. See Response to Comments 5-1, 16-28, 23-5, and 23-20, and Master Response 9.
- 23-35. See Response to Comment 21-80.
- 23-36. See Master Response 6.
- 23-37. Using the risk-based cumulative pollutant loading limits for biosolids (contained in Part 503.13 Table 3) to control land application of high-quality biosolids, when applied at higher loading rates, is not a misapplication of the risk-based limits. When biosolids are loaded at rates higher than the rates assumed by EPA, pollutants in soils may build up rapidly toward those levels established by the cumulative pollutant loading rate. No evidence has been provided that indicates differences between the metals in exceptional quality biosolids and biosolids not qualifying as Exceptional Quality (except differences in concentration per unit volume of biosolids). The EPA risk assessment assumed 100% metal availability. There is a risk that higher quality biosolids could be applied at rates high enough to create a hazard. Also, for including background pollutants, see Response to Comment 14-19 and Master Response 4 regarding molybdenum.
- 23-38. The setback for agricultural buildings, except occupied onsite residences which is now listed at 50 feet, has been omitted. However, the setback for a domestic well is consistent with the CWEA manual cited in the comment. Also see Master Response 3.
- 23-39. See Responses to Comments 18-7 and 21-85.
- 23-40. Comment noted. Grower is now defined in the proposed GO. The text of the proposed GO, as found in Finding No. 3 of Appendix A, now includes Grower as follows:

o. Grower: Person or entity primarily responsible for planting, maintaining and harvesting or allowing the use of crops and/or range land for domestic animal or human use.

Provision 7. has been written as follows:

The discharger shall be responsible for informing all biosolids transporters, appliers, and growers using the site of the conditions in this General Order.

- 23-41. Comment noted. Staging is now eliminated from the list of items to be identified on the required map in the Pre-Application Report.
- 23-42. Comment noted. This portion of the text of the proposed GO, as found in the Pre-Application Report of Appendix A, now reads as follows:

~~A separate Pre-Application Report~~The section below must be filled out for each different biosolids' source. If additional space is required, copy this section and attach.

- 23-43. PCBs, aldrin/dieldrin, and some semi-volatile organic compounds, as discussed in the National Academy of Sciences Peer Review (NASPR), were detected in more than 5 percent of the samples. NASPR's recommendation was to obtain more data on those pollutants in sludges. Fecal coliform is still in the table, but not required unless applicable (Class A). The test for pH is required for evaluation of lime stabilized material. Soil sampling is now clarified so as to not include PCB, pesticides, or SOC.
- 23-44. When groundwater is within 25 feet of the ground surface and the applier intends to make multiple applications over time, monitoring for compliance with agronomic applications is desirable and not believed to be an economic burden.
- 23-45. How biosolids destined for the land application site is handled can have a direct effect on compliance. Handling material and storing it, as necessary, is something that all biosolids projects need to consider before the start of operation. Accordingly, such information is required in the proposed GO.
- 23-46. This information is now in the Notice of Intent. It also remains in the Pre-Application Report for cases where the original information has changed.
- 23-47. This requirement has been removed.
- 23-48. See Response to Comment 16-41.